

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

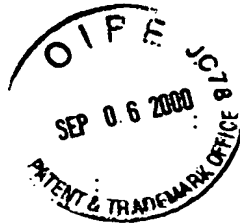
#3  
AW  
10-26-00

In re application of:

Jorg-Thorsten MOHR et al.

Serial No.: 09/640,748

Filed: August 18, 2000



Group Art Unit:  
NOT YET ASSIGNED

Examiner  
NOT YET ASSIGNED

For: PROCESS FOR PRODUCING OF DROSPIRENONE (6 $\beta$ , 7 $\beta$ , 15 $\beta$ , 16 $\beta$ -DIMETHYLENE-3-OXO-17 $\alpha$ -PREGN-4-EN-21, 17-CARBOLACTONE, DRSP) AS WELL AS 7 $\alpha$ -(3-HYDROXY-1-PROPYL)-6 $\beta$ , 7 $\beta$ ; 15 $\beta$ , 16 $\beta$ -DIMETHYLENE-5 $\beta$ -ANDROSTANE-3 $\beta$ , 5, 17 $\beta$ -TRIOL (ZK 92836) AND 6 $\beta$ , 7 $\beta$ ; 15 $\beta$ , 16 $\beta$ -DIMETHYLENE-5 $\beta$ -HYDROXY-3-OXO-17 $\alpha$ -ANDROSTANE-21, 17-CARBOLACTONE (90965) AS INTERMEDIATE PRODUCTS OF THE PROCESS

**INFORMATION DISCLOSURE STATEMENT**

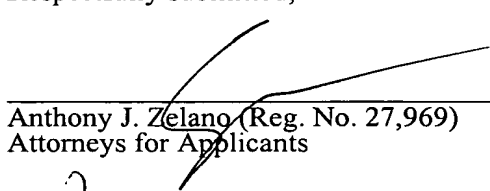
Assistant Commissioner for Patents  
Washington, D.C. 20231

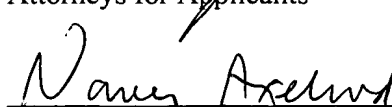
Sir:

The attached PTO Form-1449 lists references cited in the ancestor application of the above-identified application. In accordance with 37 C.F.R. §1.98(d), copies of these documents are not enclosed. References AA-AC; AO-AQ and AW were cited in application Serial No. 09/242,334 and references AD and AR were cited in application Serial No. 09/442,485. The Examiner is respectfully requested to acknowledge consideration of the listed references by initialing the attached Form PTO 1449 indicating that the information has been considered and made of record herein.

This Information Disclosure Statement is being submitted prior to receipt of the first action on the merits. Therefore, it is believed that no fee is required. See 37 C.F.R. §1.97(b)(3).

Respectfully submitted,

  
Anthony J. Zelano (Reg. No. 27,969)  
Attorneys for Applicants

  
Nancy J. Axelrod (Reg. No. 44,014)  
Patent Agent

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.  
Arlington Courthouse Plaza I  
2200 Clarendon Boulevard, Suite 1400  
Arlington, Virginia 22201  
(703) 812-5304 [Direct Dial]  
E-mail address: axelrod@mwzb.com

Filed: September 6, 2000

AJZ/NJA/lvb  
K:\PAT\Sch\1664\CI\ids.wpd

DOCKET NO.

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION

International Office

INTERNATIONAL APPLICATION PUBLISHED ACCORDING TO THE PATENT  
COOPERATION TREATY (PCT)

- (51) International patent classification<sup>6</sup>: C07J 53/00 A1
- (11) International publication number: WO 98/06738
- (43) International publication date: February 19, 1998 (2/19/98)
- (21) International file number: PCT/EP97/04342
- (22) International application date: August 11, 1997 (8/11/97)
- (30) Priority data: 196 33 685.6 August 12, 1996 (8/12/96) DE
- (71) Applicant (for all designated countries except US):  
SCHERING AKTIENGESELLSCHAFT [DE/DE]; Patents, Müllerstrasse  
178, P. O. Box 65 03 11, D-13342 Berlin (DE).
- (72) Inventors; and
- (75) Inventors/applicants (only for US):  
MOHR, Jörg-Thorsten [DE/DE]; Zwinglistrasse 4, D-10555  
Berlin (DE). NICKISCH, Klaus [DE/DE]; Zescher Strasse 14,  
D-12307 Berlin (DE).
- (74) Joint Representative: SCHERING AKTIENGESELLSCHAFT, Patents,  
Müllerstrasse 178, P. O. Box 65 03 11, D-13342 Berlin (DE).
- (81) Designated countries: AL, AM, AT, AU, AZ, BB, BG, BR, BY,  
CA, CH, CN, CZ, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE,  
KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,  
MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR,  
TT, UA, UG, US, UZ, VN, ARIPO Patent (GH, KE, LS, MW, SD,  
SZ, UG, ZU), Eurasian Patent (AM, AZ, BY, KG, KZ, MD, RU,  
TJ, TM), European Patent (AT, BE, CH, DE, DK, ES, FI, FR,  
GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI Patent (BF, BJ,  
CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

Published:

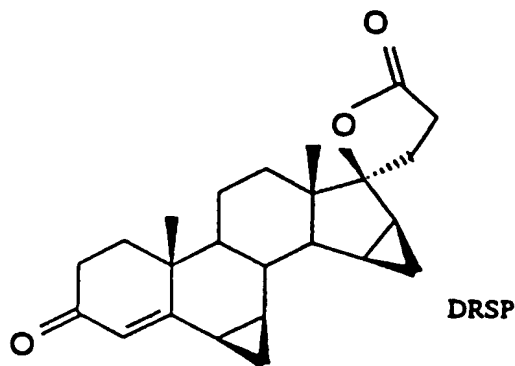
With international search report.

008760" 84204960

(54) Title: PROCESS FOR THE PRODUCTION OF DROSPIRENONE (6 $\beta$ ,7 $\beta$ ;  
15 $\beta$ ,16 $\beta$ -DIMETHYLENE-3-OXO-17 $\alpha$ -PREGN-4-ENE-21,17-  
CARBOLACTONE, DRSP) AND 7 $\alpha$ -(3-HYDROXY-1-PROPYL)-6 $\beta$ ,7 $\beta$ ;  
15 $\beta$ ,16 $\beta$ -DIMETHYLENE-5 $\beta$ -ANDROSTANE-3 $\beta$ ,5,17 $\beta$ -TRIOL (ZK  
[CENTRAL CATALOG] 92836) AND 6 $\beta$ ,7 $\beta$ ; 15 $\beta$ ,16 $\beta$ -DIMETHYLENE

(57) Abstract

Process for the production of drospirenone (6 $\beta$ ,7 $\beta$ ; 15 $\beta$ ,16 $\beta$ -  
dimethylene-3-oxo-17 $\alpha$ -pregn-4-ene-21,17-carbolactone, DRSP) (1)  
and 7 $\alpha$ -(3-hydroxy-1-propyl)-6 $\beta$ ,7 $\beta$ ; 15 $\beta$ ,16 $\beta$ -dimethylene-5 $\beta$ -  
androstane-3 $\beta$ ,5,17 $\beta$ -triol (ZK 92836) and 6 $\beta$ ,7 $\beta$ ; 15 $\beta$ ,16 $\beta$ -  
dimethylene-5 $\beta$ -hydroxy-3-oxo-17 $\alpha$ -androstane-21,17-carbolactone  
(ZK 90965) as intermediate products of the process.



(I)

FOR INFORMATION ONLY

Codes used for identifying PCT member countries on the head sheets of the publications of international applications according to the PCT.

AL	Albania
AM	Armenia
AT	Austria
AU	Australia
AZ	Azerbaijan
BA	Bosnia and Herzegovina
BB	Barbados
BE	Belgium
BF	Burkina Faso
BG	Bulgaria
BJ	Benin
BR	Brazil
BY	Belarus
CA	Canada
CF	Central African Republic
CG	Congo
CH	Switzerland
CI	Ivory Coast
CM	Cameroon
CN	China
CU	Cuba
CZ	The Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
ES	Spain
FI	Finland
FR	France
GA	Gabon
GB	United Kingdom
GE	Georgia
GH	Ghana
GN	Guinea
GR	Greenland
HU	Hungary
IE	Ireland
IL	Israel
IS	Iceland
IT	Italy
JP	Japan
KE	Kenya
KG	Kyrgyzstan

09640745-081300

008780 " 81704950

KP	Democratic People's Republic of Korea
KR	Republic of Korea
KZ	Kazachstan
LC	St. Lucia
LI	Liechtenstein
LK	Sri Lanka
LR	Liberia
LS	Lesotho
LT	Lithuania
LU	Luxembourg
LV	Latvia
MC	Monaco
MD	Republic of Moldova
MG	Madagascar
MK	the former Yugoslavian Republic of Macedonia
ML	Mali
MN	Mongolia
MR	Mauritania
MW	Malawi
MX	Mexico
NE	Niger
NL	The Netherlands
NO	Norway
NZ	New Zealand
PL	Poland
PT	Portugal
RO	Romania
RU	Russian Federation
SD	Sudan
SE	Sweden
SG	Singapore
SI	Slovenia
SK	Slovakian Republic
SN	Senegal
SZ	Swaziland
TD	Chad
TG	Togo
TJ	Tajikistan
TM	Turkmenistan
TR	Turkey
TT	Trinidad and Tobago
UA	The Ukraine
UG	Uganda
US	United States of America
UZ	Uzbekistan
VN	Vietnam
YU	Yugoslavia
ZW	Zimbabwe